

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231 www.uspto.gov

| APPLICATION NO.  | FILING DATE    | FIRST NAMED INVENTOR  | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |
|--|----------------|-----------------------|-------------------------|------------------|
| 09/367,081   | 01/24/2000     | JEAN-FRANCOIS PENNEAU | 15675.P291              | 3851             |
| 7.   | 590 02/12/2002 |                       |                         |                  |
| 22   | OKOLOFF TAYLO  | EXAMINER              |                         |                  |
| 12400 WILSHIRE BOULEVARD<br>7TH FLOOR<br>LOS ANGELES, CA 90025 |                |                       | VO, HAI                 |                  |
|  |                |                       | ART UNIT                | PAPER NUMBER     |
|  |                | •                     | 1771                    |                  |
|  |                |                       | DATE MAILED: 02/12/2002 | 8                |

Please find below and/or attached an Office communication concerning this application or proceeding.

|   |  | Application No.   | Applicant(s)  |  |  |  |
|---|--|---|---|--|--|--|
|   |  | 09/367,081  | PENNEAU ET AL.  |  |  |  |
| o   | ffic Action Summary  | Examiner  | Art Unit  |  |  |  |
|   | •  | Hai Vo  | 1771  |  |  |  |
| The   | MAILING DATE of this communi   | ication appears on the cover sheet w  |   |  |  |  |
| Period for Reply  |  |   |   |  |  |  |
| THE MAILI  - Extensions of after SIX (6)  - If the period  - If NO period  - Failure to reply received.   | NG DATE OF THIS COMMUNII<br>f time may be available under the provisions<br>MONTHS from the mailing date of this comm<br>for reply specified above is less than thirty (30<br>for reply is specified above, the maximum sta-<br>ly within the set or extended period for reply | of 37 CFR 1.136(a). In no event, however, may a                             | reply be timely filed ty (30) days will be considered timely. NTHS from the mailing date of this communication. BANDONED (35 U.S.C. § 133). |  |  |  |
| 1)⊠ Res   | ponsive to communication(s) file   | ed on <u>08 <i>January</i> 2002</u> .                                       |   |  |  |  |
| 2a)∏ This   | action is FINAL.   | 2b)⊠ This action is non-final.  |   |  |  |  |
|   | 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.   |   |   |  |  |  |
| Disposition of  | Claims   |   |   |  |  |  |
| 4)⊠ Clair   | n(s) <u>1-9,21 and 25-115</u> is/are p   | ending in the application.  |   |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.  |  |   |   |  |  |  |
| 5) Clair  | n(s) is/are allowed.   |   |   |  |  |  |
| 6)⊠ Clair   | n(s) <u>1-9,21 and 25-115</u> is/are re  | jected.   |   |  |  |  |
| 7)☐ Clair   | n(s) is/are objected to.   |   |   |  |  |  |
| 8) Clair  | n(s) are subject to restric  | tion and/or election requirement.   |   |  |  |  |
| Application P   | pers   |   |   |  |  |  |
| 9)∐ The s   | pecification is objected to by the   | e Examiner.   |   |  |  |  |
| 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  |  |   |   |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).   |  |   |   |  |  |  |
| 11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved by the Examiner.  |  |   |   |  |  |  |
| If approved, corrected drawings are required in reply to this Office action.  |  |   |   |  |  |  |
| 12) <u></u> The o   | ath or declaration is objected to  | by the Examiner.  |   |  |  |  |
| Priority under  | 35 U.S.C. §§ 119 and 120   |   |   |  |  |  |
| 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).   |  |   |   |  |  |  |
| a)∏ All   | b) Some * c) None of:  |   |   |  |  |  |
| 1.  | •  | documents have been received.   |   |  |  |  |
| 2.  | Certified copies of the priority   | documents have been received in A   | Application No  |  |  |  |
| <ul> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul> |  |   |   |  |  |  |
| 14)∐ Ackno  | 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).   |   |   |  |  |  |
|   | _  | guage provisional application has b<br>or domestic priority under 35 U.S.C. |   |  |  |  |
| Attachment(s)   |  |   |   |  |  |  |
| 2) D Notice of Dr   | ferences Cited (PTO-892)<br>aftsperson's Patent Drawing Review (P<br>Disclosure Statement(s) (PTO-1449) Pa   | TO-948) 5) Notice of  | Summary (PTO-413) Paper No(s) Informal Patent Application (PTO-152)   |  |  |  |
| J.S. Patent and Trademark<br>PTO-326 (Rev. 04-0   |  | Office Action Summary   | Part of Paper No. 8   |  |  |  |

Art Unit: 1771

1. Claims 10-20 and 22-24 were cancelled and claims 30-115 were added in the amendment received on 01/15/02.

#### Election/Restrictions

2. Applicant's election without traverse of Group I, 1-9, 21, 25-29 in Paper No. 7 is acknowledged.

### Claim Objections

3. Claims 1-9, 21, and 25-115 are objected because the phrase "characterized in that" should be changed to comprising or wherein. Correction is appropriate.

### Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

sheet (column 26, lines 58-60).

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States
- 5. Claims 1, 2, 4, 6, 8, 21, 25-31, 33, 35, 37, 38, 41-49, 51, 53, 55, 57, 58, 61, 62, 64-69, 71, 72, 74, 76, 78, 79, 82, 83, 85-91, 112, 113 and 115 are rejected under 35 U.S.C. 102(b) as being anticipated by Andersen et al (US 5,665,442). Andersen discloses a highly inorganically filled sheet with a homogeneous structure prepared form moldable mixture comprising an organic polymer binder and at least 20% by weight of inorganic filler (examples 1-6, column 21, lines 33-35).
  With regard to claims 8, 31, 41, 42, 61, 62, 82, 83, 115 Andersen discloses silica fume having a high surface area and being incorporated into the porous composite

Art Unit: 1771

With regard to claims 4, 6, 33, 35, 37, 38, 53, 55, 57, 58, 74, 76, 78, 79, 112 and 113 Andersen discloses suitable synthetic organic binder being poly(vinyl alcohol), arcrylic polymer (column 24, lines 11-19).

With regard to claims 2, 45, 46, 48, 49, 51, 66, 68, 69, 72, 87, 88, 90, 91 since the article of Andersen is made of the same materials and produced by the same extrusion process. It is the examiner's position that the article of Andersen would inherently exhibit a BET specific surface and a tensile strength within the ranges as claimed by the present invention.

With regard to claim 26, Andersen discloses application of the composite products for packaging (column 59, line 32).

With regard to claims 25, and 27-29, It has been held that a recitation with respect to the manner in which a claimed composite product is intended to be employed does not differentiate the claimed composite product from a prior art laminated sheet satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

## Claim Rejections - 35 USC § 103

- 6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Art Unit: 1771

7. Claims 3, 9, 32, 39, 43, 50, 52, 59, 63, 70, 73, 80, 84, 92-95, 97, 99-101, 103-110 and 114 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersen et al (US 5,665,442). Andersen is silent as to the mean diameter of the pore. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have altered the size range of the pores since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233. It would have been obvious to the skilled artisian to have optimized the size range of the pores motivated by the desire to control the degree of porosity of the film.

With regard to claims 9, 43, 63, and 84, Andersen is silent as to the specific surface range of the filler. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have altered the specific surface range of the filler since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. It would have been obvious to the skilled artisian to have optimized the specific surface range of the filler motivated by the desire to provide high initial cohesiveness of the freshly formed sheet.

With regard to claims 39, 59, 80, 114, Andersen is silent as to the molecular weight range of polyether. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have altered the molecular weight range of the polyether since it has been held that where the general conditions of a claim are

Art Unit: 1771

disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. It would have been obvious to the skilled artisian to have optimized the molecular weight range of the polyether motivated by the desire to obtain an ease of handling and processing the matrix material.

With regard to claims 92-95, 97, 99-101, 103-110, Andersen is silent as to the granule shape of the composite product. *In re Dailey*, 149 USPQ 47 (CCPA 1976), there is nothing on the record that convinces the examiner that the particular shape of the composite product is significant or is anything more than one of numerous shapes a person of ordinary skill in the art would find obvious for the purpose of providing the shape of the composite product, therefore, the shape of the composite product in itself would not render the claims patentable overAndersen. See *Graham v. John Deere Co.*,

8. Claims 34, 54, 75, 96 and 111 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersen et al (US 5,665,442) as applied to claims 1, 30, 51, 71, 92 in view of Rakestraw et al (US 5,458,836). Andersen does not disclose fluorinated polyolefin. Rakestraw discloses fluorinated polyolefin useful with the extrusion die (column 5, lines 29-40). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used fluorinated polyolefin as the elastomer of the composite product since the equivalence of the polyolefin, fluorinated polyolefin for their use in the thermoplastic elastomers and the

Application/Control Number: 09/367,081 Page 6

Art Unit: 1771

70

selection of any of these known equivalents would be within the level of the ordinary skill in the art.

9. Claims 5, 7, 36, 40, 56, 60, 77, 81, 98, and 102 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersen et al (US 5,665,442) as applied to claims 1, 30, 51, 71, and 92 in view of Coughlin (US 4,403,007). Andersen is silent as to polyolefin. Coughlin discloses a filled thermoplastic composition comprising 5 to 55% by weight of ethylene copolymer, 1 to 15% by weight of polyether, and about 40 to 90% by weight of filler (abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have altered the amount of polyolefin in the composition since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. It would have been obvious to the skilled artisian to have optimized the amount of polyolefin motivated by the desire to obtain a final product with good adhesion, good toughness and low cost.

### Response to Arguments

- 10. Applicant's arguments with respect to claims 1-9, 21, and 25-29 have been considered but are moot in view of the new ground(s) of rejection.
- 11. Claim objections and claims rejections in Paper no. 5 have been overcome by the present amendment and response.

#### Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (703) 605-4426. The examiner can normally be reached on Monday to Friday, 8:30 to 5:00 (EAST). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

HV February 5, 2002 TERREL MORKIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

Art Unit: 1771